

Notes on *Anolis notopholis* Boulenger, 1896 (Sauria: Iguanidae)

by

P. VAN DEN ELZEN and K.-L. SCHUCHMANN

Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn

During a zoological survey in Southern Colombia (August–September 1978) one of us (K.-L. S.) collected several *Anolis* species. Amongst these were also *Anolis notopholis* which were common in dense secondary vegetation growing along the banks of the Rio Dagua, about 20 km East of Buenaventura.

Since the original description by Boulenger little, to our knowledge, has been published on the life history of this particular iguanid lizard. This paper therefore presents additional ecological and morphological information on the species.

The locality where the specimens were collected is situated along the banks of the Rio Dagua near a field station maintained by the Colombian government, Department of Forestry, at which agricultural experiments are conducted. This research centre is situated at an altitude of approximately 100 m NN. The original primary tropical rain forest of this area has been cleared around the centre to some extent. These clearings are now mainly covered with herbaceous plants. Around the buildings *A. notopholis* occurred in fairly large numbers (2–4 ♂/m²) in this low vegetation. Males were usually seen perching in an exposed position on grass stems and other low-growing flowering plants. This anole was neither observed in dense secondary forest nor in gallery forest.

The species is known from Buenaventura, near the coast. This is also the type locality for *A. notopholis* as defined by Boulenger (1896: 17). Our specimens which were collected further east reveal that the geographical distribution extends to the lower slopes of the Cordillera Occidental. This anole is probably much more widespread along the Pacific coast of Southern Colombia than formerly thought, as the habitat colonised by the species is not restricted to the Buenaventura area.

Boulenger states that *A. notopholis* is allied to *A. macrolepis* (1911: 659), another Colombian species, and to *A. tropidonotus* (1896: 17) basing his as-

sumption on morphological characters. The latter occurs from Mexico to Nicaragua and Honduras. All three belong to the *Norops*-like (the genus *Norops* Wagler being invalid) anoles, which are small (snout-vent length less than 60 mm) in contrast to the "giant" *A. eulaemus* species group of which *A. mirus* reaches snout-vent lengths over 100 mm. The three forms mentioned have only slightly dilated toe pads and although superficially similar there seems no apparent reason for assuming a close relationship.

To simplify possible comparisons at a later date a short description of the specimen examined (ZFMK 29890), a male, seems warranted.

Head 1.8 times as long as broad; upper head scales strongly keeled; scales of supraorbital semicircles enlarged, separated by one series of scales; three enlarged supraoculars; canthus angular; six loreal rows from third canthal; uppermost and lowermost loreal rows largest; interparietal feebly enlarged, smaller than ear opening length, separated from supraorbital semicircles by two scales; ear opening vertically oval, 1.8 mm in length; nine supralabials to below centre of eye.

Dorsal scales very large, juxtaposed, fully twice as large as ventrals, squarish to hexagonal, subimbricate, strongly keeled, in nine longitudinal series, the two median rows with smaller scales; laterals very small, keeled, not granular; ventrals rhomboidal, somewhat similar to dorsals but variable, rounded behind or not, strongly keeled.

Dewlap moderate, 13.2 mm in length, gular scales keeled. No dorsonuchal fold.

The adpressed hind limb reaches the eye, digits not (or but slightly) dilated, 15 scales under phalanges ii and iii of fourth toe; distal phalanx raised.

Colour (in alc.) as described by Boulenger (1896: 17). The colour as observed in live specimens is as follows: interrupted band of rectangular, posteriorly orientated, dark brown blotches present dorsolaterally, becoming more attenuated as it approaches the caudal area; sides and lower parts of the head greenish yellow, the region surrounding the ear opening lighter yellow; the isolated dorsolateral blotches unite to form a chocolate brown stripe on the nape where it bifurcates, the inner branch towards the interparietal region and the outer branch passing through the eye and along the canthus to the nares; limbs a light brown with dark brown cross bands which become indistinct on the inner surface; ventrally whitish; dewlap small and uniform vermilion.

Total length 156.5 mm, head + body 49.5 mm, tail 107 mm, hind limb 43.2 mm (fig. 1).

Following the taxonomic key developed by Peters & Donoso-Barros (1970: 45, 46) leads either to *A. macrolepis* or to *A. notopholis*. *A. macrolepis*, however, may readily be distinguished by its different scalation (interparietal very large, dorsals with feeble keels, supraorbital semicircles in contact with the interparietal) and a slightly different colour pattern.

Little, if anything, is known on the ecology of this species. Narrow toe pads are characteristic of some anoles that are not arboreal but are grass or ground dwellers. A low lamellae number tends to indicate species which spend most of their lives on or slightly above the ground. But, as Williams (1975: 3) indicates for both *A. mirus* and *A. parilis*, which belong to the larger sized anoles, these species have the first phalanx of each digit remarkably enlarged and strengthened thus implying active climbing by the use of claws, becoming independent of toe pads.

A. notopholis seems, by what is known, to be a low-vegetation specialist, keeping to herbaceous cover. Its small size and colour coupled with a moderate number of lamellae make it appear admirably adapted to the habitat colonised. Further collecting and observation of the species in the field is necessary to gain a more complete understanding of the anoles of the Pacific lowlands.



Fig. 1: *Anolis notopholis*, adult ♂, snout-vent length 49.5 mm, tail length 107 mm (H. Unte phot.).

Zusammenfassung

Anolis notopholis wurde 20 km östlich von Buenaventura, Kolumbien, entlang der flachen Ufervegetation des Rio Dagua beobachtet und gesammelt. Außer Angaben zur Ökologie dieser Art wird die systematische Stellung diskutiert.

References

- Boulenger, G. A. (1896): Descriptions of new reptiles and batrachians from Colombia. — Ann. Mag. nat. Hist. 6, 17: 16–21.
- (1911): Descriptions of new reptiles from the Andes of South America, preserved in the British Museum. — Ann. Mag. nat. Hist. 8, 7 (37): 656–662.
- Peters, J. A., & R. Donoso-Barros (1970): Catalogue of the Neotropical Squamata: Part II. Lizards and amphisbaenians. — Bull. U. S. natn. Mus. 297: 1–293.
- Williams, E. E. (1963): Studies on South American anoles. Description of *Anolis mirus*, new species, from Rio San Juan, Colombia, with comment on digital dilation and dewlap as generic and specific characters in the anoles. — Bull. Mus. comp. Zool. 129, 9: 463–480.
- (1975): South American *Anolis*: *Anolis parilis*, new species, near *A. mirus* Williams. — Breviora Mus. comp. Zool., 434: 1–8.
- Address of the authors: Zoologisches Forschungsinstitut und Museum A. Koenig, Adenauerallee 150–164, D-5300 Bonn 1, Germany.